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(54) Method and apparatus for decoding transform coefficients

(57) An apparatus is disclosed for decoding a stream of previously encoded coefficients including input means for receiving the stream of encoded coefficients; bit plane level monitoring means connected to the input means and adapted to monitor a current bit plane level from the stream of coefficients; pixel generation means interconnected to the input means and the bit plane level monitoring means and adapted to utilize the current bit plane level for generating output coefficient values each having a predetermined size. The bit plane level monitoring means can include a finite state control machine interconnected to the input means and adapted for determining bit plane level changes in the coefficient input stream; a counter interconnected to the finite state control machine for monitoring a current bit plane level; a heap store interconnected to the counter and the finite state control machine and adapted store bit plane level values for utilization in recursion operations by the finite state control machine; and wherein the finite state machine acts to decrement the counter upon the receipt of a bit level change indicator in the coefficient input stream and further to control the reloading of the counter upon completion of the recursion operations.

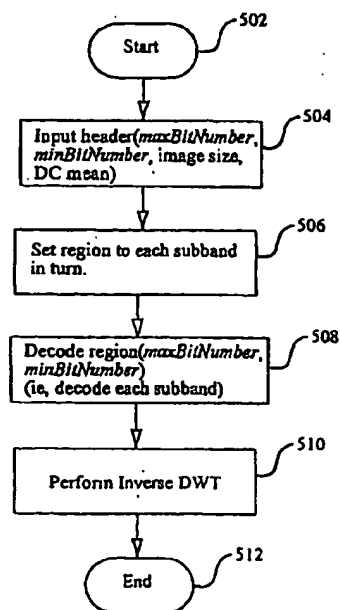


Fig. 5

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